



Gurobi Compute Server

A Better Way to Deploy Optimization Applications



Create high-performance, fault-tolerant optimization applications that make more efficient use of your computing resources and your optimization software licenses.

The scope of optimization applications has been growing steadily

They are used by more people inside a given organization, and are more critical to a business' success than ever before. As a result, such applications often have a number of complex requirements placed upon them. For example, they may be required to support multiple simultaneous users running on a variety of computing platforms, or they may need to meet stringent uptime goals, or they may need to be able to handle spikes in user demand.

The new Gurobi Compute Server is designed to greatly simplify the task of building and deploying such applications. The system combines a client library that seamlessly offloads optimization tasks to powerful servers with server software that manages all aspects of processing these jobs, including queuing, load balancing, and failover. The result is a powerful system that makes it easier to build scalable, reliable applications.

Seamlessly integrate client-server capabilities

The new Gurobi Optimizer library allows you to use our existing interfaces to write a single program that can either run locally or, with the flick of a switch, can offload optimization computations to one or more Gurobi Compute Servers. This removes the need to hire a client-server programmer to add these capabilities to your application.

Powerful queuing capabilities

Make the most of your computing resources with built-in queuing and load balancing capabilities so your jobs run as soon as a server is available. You can also assign priorities to jobs to make sure that your most important jobs complete as quickly as possible.

Rapid failover capabilities

If a server goes offline (due to a system failure, routine maintenance, etc.), the remainder of the servers will continue to operate unimpeded. There is no single point of failure, so jobs already in the job queue and newly submitted jobs will continue to be processed by the available servers.

Secure and efficient communication

The Compute Server communication protocol utilizes on-the-fly data compression to reduce the volume of data transmitted, and performs 256-bit AES encryption to ensure the security of your data.

Built-in administrative tools

Pre-built tools allow administrators to view usage information, adjust user job priorities, bring servers down for maintenance, and preempt running jobs.

Useful in a wide range of scenarios

Early users have identified a number of scenarios where the Gurobi Compute Server is likely to be useful:

- **Ensuring high reliability** – Automatic failover allows you to rapidly recover if one of your servers goes down. Furthermore, automatic load balancing enables you to use your disaster recovery servers, which might otherwise sit idle, to increase total throughput in your live configuration.
- **Better handling of spikes in demand** – Since it is easy to add additional servers, either locally or via Gurobi Cloud, you can easily scale up available computer power during peak demand times and then scale back when those periods are over.
- **Easily connecting optimization models to modern n-tier architectures** – N-tier architectures are common among today's mission-critical enterprise applications. In such architectures, application functions are split among a set of machines, each dedicated to performing specific tasks. The Gurobi Compute Server easily integrates with these systems, allowing you to add a dedicated "optimization tier" to the mix.

Run Gurobi Compute Server on your own server or in the cloud

We give you the option of deploying your applications on a Gurobi Compute Server in several different ways: you can purchase licenses for use on your own servers, you can use Gurobi Cloud, or you can use a mixture of such resources.

On Your Own Server

- Gurobi Compute Server can be installed on machines running any of the operating systems Gurobi supports, including Windows, Linux, and Mac.
- The product is self-contained. Setting up a Compute Server does not require you to purchase or install any additional software.

On Gurobi Cloud

- Gurobi Cloud is a pre-configured Compute Server that you access from your own machine over the internet.
- Rent Gurobi Cloud by the hour, or get a lower rate by signing up for a monthly subscription.
- It is easy to set up: getting started takes just a few minutes.
- Run Gurobi exclusively on the Cloud or mix in-house Compute Servers with Cloud machines.

Whether you use your own servers or Gurobi Cloud, Compute Server always provides the following features...

Support for multiple client platforms

Clients can run on any supported Gurobi operating system, including Windows, Linux, and Mac. Furthermore, clients don't need to run the same operating system as the Compute Server.

No client licenses required

A Compute Server can support an unlimited number of clients, and no client licenses are required. Simply point your client application at a Compute Server and you are ready to go.

Industry Leading Technical Support

Whether you are running on your machines or using a Gurobi Cloud Server, you can rest assured knowing that you will have access to our industry-leading Gurobi Technical Support.

Getting Started Takes Just a Few Minutes

Setting up a compute server is easy. On your own machine, just install Gurobi and start the Compute Server process. With Gurobi Cloud, simply follow our step-by-step instructions to sign up for an account and choose the plan and number of machines you want to use.

To learn more about Gurobi Compute Server features and pricing visit our website at:
www.gurobi.com/licensing-and-pricing/licensing-overview

To learn more about Gurobi Cloud features and pricing visit our website at: www.gurobi.com/products/gurobi-cloud

Contact us at info@gurobi.com, or +1 713 871 9341, for more information and pricing on the Gurobi Compute Server, and a free, full-featured, evaluation license.



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